

**OPTIMIZED DATA STORAGE SYSTEM AND METHOD FOR OPTICAL STORAGE
SYSTEM**

ABSTRACT

5 The accuracy of a data storage device is improved by incorporating a number of
multipurpose reference bytes throughout the data. The reference bytes are used to coordinate the
timing and accuracy of data when retrieved from the media. Additionally, the referene bytes
provide meaningful error correction information in a manner that is easily implemented. This
use of reference bytes supplements many well known error correction methodologies to provide
10 for the accurate retrieval of information to the user. In order to coordinate the use of reference
bytes, unique operations are undertaken using a predefined preamble to appropriately set the
operating parameters of the storage device. For example, both the preamble and the reference
bytes are used to carefully control the most optimun gain and phase control for the data storage
device.